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To the Editors of the Medical Examiner.

Case of Strangulated Inguinal Hernia.—Adherent Intestine,—Operation and Recovery. By THOMAS F. BETTON, M. D.

ON the 30th of March, ult., I was requested by my friends, Dr. Smith, of Chestnut Hill, and Dr. Johnson, of this village, to visit, with them, Mr. F—, an old gentleman aged seventy-eight, afflicted with strangulated hernia. He had been labouring under all the symptoms of strangulation for ninety-six hours, and all efforts at reduction, attempted by every means which skill could suggest, had proved unavailing. It must be here stated that he had had a rupture for twenty years, which at times gave him uneasiness when at work, but which he could generally relieve by rest, and assuming the recumbent position, and he was, with difficulty, persuaded that this was not, as he supposed, one of his ordinary attacks. His habits throughout his long life had been strictly correct, and his constitution was unimpaired by disease. When convinced of his situation, he submitted cheerfully to the operation, which was performed in the usual manner. On opening the sac, which was perfectly void of fluid, the old hernia was found adherent throughout the whole circumference of the neck; the adhesions were separated and the gut returned. To complicate still further the case, a second hernia was formed below the former, and separated from it by a tendinous band, of about four lines in width. This was strangulated; the stricture was soon found, divided, and the intestine restored. The second hernia was evidently the one that had given rise to the urgent symptoms demanding the operation. Two vessels required securing, the wound was brought together, dressed, and the patient put to bed. He immediately expressed himself much relieved, and, in the course of a few hours, had two or three copious alvine evacuations. His stomach, which previously had rejected even a tea-spoonful of cold water, became tranquil; he drank some tea; took the next day, with great relish, some rye mush and molasses, and was doing as well as possible. From that time he continued to improve, and on dressing the wound on the Tuesday following, we found it united by adhesive inflammation, except in the track of the ligatures. He continued steadily to mend, requiring no medicine, but a dose or two of castor oil, and is now quite well.

The age of the patient, the length of time the gut had been strangulated, the adhesions, and the existence of two herniae on the same side, render the above case somewhat interesting, and if worthy of a place in your excellent journal, you are at liberty to use it for publication.

Germantown, April 17th, 1839.

No. 42.

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BIBLIOGRAPHICAL NOTICES.

Researches on the State of the Heart, and the Use of Wine in Typhus Fever. By WILLIAM STOKES, M. D., M. R. I. A., Honorary Fellow of the King and Queen's College of Physicians. 8vo. pp. 67. Dublin Journal of Medical Science, March, 1839.

THIS we look upon as a valuable and practical publication, and hasten to lay an abstract of it before our readers. Dr. Stokes commences with avowing his opposition to the doctrine of localization, viewing typhus fever as an essential disease, not symptomatic of any known local lesion, an expression of opinion in which we coincide.

"There can be no doubt that the typhus of Great Britain and Ireland is a disease of the whole system, not symptomatic of any particular local lesion; showing on the one hand a tendency to a favourable termination, after a period which varies indefinitely; and on the other, being capable of destroying life *with* various lesions, or *without* any appreciable change in the solids. It is a disease on which anatomy sheds but a negative light, not telling us what it is, but rather what it is not." (p. 2.)

The typhus fever of Dublin does not appear to correspond precisely with the epidemic in Philadelphia, of 1835–6, the enteric lesions occurring there almost as constantly as in typhoid fever, or dothinerteritis, as known amongst us.

Typhus fever being a disease in which, while with a natural tendency to a spontaneous and favorable termination, the organic forces are liable to sudden and intense prostration, during which time it is necessary to support nature to enable her to combat successfully the malignant influences she is exposed to, it becomes an interesting and important question to determine how this can be best effected, and what rules, if any, exist to guide us. Old and experienced practitioners possess, frequently, an instinctive tact in the exhibition of stimulants, which they cannot communicate to their junior brethren—a knowledge gained by long, and too often a mournful experience. Dr. Stokes expresses his solemn conviction that it is to the fear of wine in typhus, as well as an ignorance of the principles which should guide its exhibi-

tion, that the immense mortality in this affection is to be mainly attributed.

"If we compare the inexperienced man with him who has had a long continued practice in fever, we may often observe that the former employs a too vigorous antiphlogistic treatment in the commencement of the disease, and delays the exhibition of stimulants until the powers of life are sunk too low, while the latter is much more cautious in husbanding the strength of his patient, and shows much less fear of resorting to wine and other stimulants. It is in determining on the use of wine in fever that the junior or inexperienced man feels the greatest difficulty; it is in its exhibition that he betrays the greatest uncertainty and fear. This is to be explained by referring to the general character of the doctrines which have prevailed within the last quarter of a century, and which are only now beginning to yield to a more rational pathology. The doctrine of an exclusive or almost exclusive solidism, which referred all diseases to visible changes of organs, which taught that inflammation was the first and principal morbid phenomenon, and that fevers were always the result of, or accompanied with, some local inflammation, was, however disguised under various denominations, the doctrine taught to the majority of our students. Their ideas were thus exclusively anatomical; inflammation formed the basis of their limited pathology, and thus instructed, they entered on the wide field of practice, most of them having never even attended a fever hospital; utterly ignorant of the nature of essential fevers, they applied, in the diseases of debility, the treatment of acute local inflammation, and delayed stimulation until nature could not be stimulated.

Let it not be supposed that in this picture I seek to make a favourable contrast between the education which I myself received, and that given to others. Far from it; I confess that it was not until several years after I commenced practice that I became fully aware of the erroneousness of what is termed the anatomical theory of disease; and I feel certain, humiliating though the confession may be, that the fear of stimulants in fever with which I was imbued, was the means of my losing many patients, whose lives would have been saved, had I trusted less to the doctrine of inflammation, and more to the lessons of experience, given to us by men who observed and wrote before the times of Bichat or of Hunter." (p. 2.)

The influence of the stimulant on the condition of the pulse, has been long admitted as the true exponent of its value, and the extensive experience of Dr. Stokes adds strong confirmation to the truth of this proposition. When the pulse becomes fuller and slower on the exhibition of stimulants, a favourable prognosis may be indulged; where its frequency is increased, or its rapidity continues, a bad result must be expected. This naturally leads one to inquire into the con-

dition of the heart in typhus fever, and the eighteen cases by which Dr. Stokes has illustrated his paper, are so arranged, as the reader will presently see, as to exhibit, together, the state of the heart and the amount of wine used, thus affording an additional rule, drawn from the heart itself, to regulate the administration of stimulants. In typhus we have two conditions of the heart, diametrically opposite. In the one the impulse is either altogether wanting, or very feeble, with a diminished intensity of the sounds. In the other, the heart's action continues vigorous throughout the progress of the malady. Now the state of the skin is not an index of these two cardiac conditions, the surface frequently giving the sensation of intense heat, a symptom almost pathognomonic of typhus, whilst the heart's action is feeble; and on the other hand, the converse holds good, an alarming rapidity in the cardiac action with every appearance of utter prostration—the patient being cold, pulseless, and livid. The condition of this organ must be determined by the application of the hand and the stethoscope to the infra-mammary and sternal regions. From the result of numerous observations, our author thinks the conclusion may be established, "*that a vigorous action of the heart in typhus, points out that stimulants will not have so beneficial an effect as in the opposite case.*"

"I now recur to the division of cases of typhus into those with and those without altered phenomena of the heart. In the first class we observe:

1. Diminution and ultimate cessation of the impulse.
2. Diminution of the intensity of the sounds.
3. Cessation of one of the sounds.

These phenomena, hitherto undescribed, are among the most interesting of those connected with the heart which I have ever observed, and I shall be able to show that they have a most important application in practice, as bearing directly on the question as to the use of stimulants in typhus fever.

I shall now present a series of cases observed particularly with reference to the heart. They are so arranged as to show first, the general symptoms; next, the phenomena of the heart and pulse; and lastly, the amount of stimulants employed.

CASE II.—Severe Catarrhal Typhus; Failure of the Circulation; Cessation of the first Sound of the Heart; Use of Stimulants; Recovery.

John Keefe, æt. 20, of rather muscular frame, was admitted on the 11th of April, the seventh day of fever, with severe nervous symptoms, and all the signs, both vital and physical, of an intense bronchial affection, predominating in the left lung. The skin was thickly covered with bright red petechiae, which were confluent, form-

ing large patches on the arms and thighs; respirations twenty-eight, laboured; pulse 120, small and very weak.

The heart's impulse was visible, and the con-

tractions audible, but the second sound greatly predominated over the first. It was loud and distinct, while the first was very feeble, particularly at the left side of the heart.

DATE.	GENERAL SYMPTOMS.	PHENOMENA OF CIRCULATION.	TREATMENT.
April 12.	Delirium; intense bronchial rales; insatiable thirst; diarrhoea.	Pulse 120, weaker than yesterday; impulse less perceptible; <i>first sound nearly inaudible</i> ; carotid pulsations of good strength; extremities warm.	Cupping; blister to the sternum; anodyne enema, and poultices to the belly.
" 14	Continual moaning; petechiae more diffused and dark coloured.	Pulse about 112; impulse barely perceptible; over the left cavities the first sound is scarcely distinguishable, while over the right it is more so; <i>second sound very clear</i> .	Wine 10 ounces, arrow root, decoct. sennæ.
" 15.	Countenance improved; much delirium; bronchitis lessened; diarrhoea continues; the marks of the cupping glasses are black.	Pulse 112, contracted and compressible; no impulse of the heart under the mamma; the first sound totally inaudible, second less distinct than yesterday; on the left margin of the sternum nothing can be heard but the second sound, and this feebly.	Wine 16 oz. Blister to abdomen; anodyne enema; beef tea.
" 16.	Looks better; slept well; diarrhoea less.	Pulse 108, stronger and fuller; first sound audible over the whole praecordial region, second more distinct.	Repeat all.
" 17.		Pulse 100; respirations 28; impulse again perceptible.	Wine 12 ounces.
" 18.		Impulse still stronger, striking over a greater surface; both sounds distinctly audible at the inferior part of left side, and also to the right of the sternum; pulse 96; respirations 32.	Wine 12 ounces; jelly 2 glasses.
" 19.	Bronchitis much less; petechiae fading; bowels regular.	Pulse 76, full, of good strength; heart's impulse more vigorous; sounds as yesterday.	Wine 6 ounces.
" 20.		Pulse 88; phenomena of heart natural.	Wine 6 ounces.
" 21.		Ditto, ditto.	Wine 4 ounces.
" 23.	Convalescent. Patient discharged on 2d of May, perfectly well.		

In this case, and that which follows, we observe the remarkable and important peculiarity of the supervention of bad symptoms of prostration and putrescence at an unusually early period of the disease. This circumstance should always excite great apprehension, and lead to the exhibition of stimulants, notwithstanding the existence of various local irritations. In both these cases the chest and abdomen were severely engaged, and in both, the early exhibition of wine not only did no harm, but was productive of the happiest effects. The existence of signs of bronchitis or enteritis in our maculated fever does not necessarily contra-indicate the free and early use of stimulants.

In examining the efficacy of wine in typhus, if we compare the case with predominance of

enteric, and those with bronchial irritation, we generally find that in the latter group the stimulant is better borne, and there is a class of cases in which wine is scarcely admissible. These cases present signs of enteric irritation of great severity, alternating with violent nervous symptoms, unaccompanied by petechiae, or other phenomena of putrescence. The use of wine is almost always injurious from its too violently exciting the brain. But in the bad petechial typhus with great prostration of strength, the existence of thirst, abdominal pain and tenderness, diarrhoea and tumefaction, should not prevent us from having recourse to wine.

I beg to draw the particular attention of my readers to the cardiac phenomena in this case; it may be right to state, that the stethoscopic

observations in this and the succeeding cases were made with the greatest care.

We observed, in the first place, a progressively diminishing impulse; on the seventh day the impulse was visible at the side, but on the tenth was altogether wanting; it reappears on the twelfth, and continues to increase until the period of the patient's restoration to health.

In the second place, we find a singular modification of the sounds of the heart; the proportion between the two sounds was lost on the seventh day, the first being exceedingly feeble, the second comparatively strong; on the eighth day the first sound was scarcely audible, and on the tenth it became extinct, and we had the singular phenomenon, never before observed, of the heart in typhus fever giving but a single sound. On the eleventh day, under the influence of powerful stimulation, the first sound reappears, and the second has more vigour; on the twelfth day both sounds are distinctly audible, and on the fourteenth the phenomena of the heart are natural." (p. 8.)

The importance and truth of the following remarks must be acknowledged by every one. The state of the tongue is the great stronghold of the symptomatic physician.

"I greatly doubt whether there is any symptom which we can depend on as indicative of gastric inflammation in petechial typhus. That the condition of the tongue is fallacious has been established by Andral and Louis from numerous dissections, and the utility of wine and other stimulants, when the tongue is dry and brown, gives another and different description of proof. In a paper on the use of wine and opium in fever, published by my colleague, Dr. Graves, in the first volume of the Dublin Journal of Medical Science, he observes: 'In the first place, as to the tongue, at an advanced period of fever, I have often derived the greatest advantage from wine and opium, although the tongue was dry, the colour of old mahogany, or else coated with a yellowish brown dry fur, and protruded with difficulty, while the teeth and gums were covered with sordes; wine or porter, in moderate quantities, seem generally to agree with this tongue better than opium; in some cases, however, the latter is indispensable. For fear of misleading the reader, I must again remark that I by no means wish to assert that such a tongue uniformly, or even frequently, indicates the use of these medicines: on the contrary, this state of the tongue and mouth will often be observed at a time when leeches and antiphlogistic treatment are required. Let it be clearly understood, however, that at an advanced period of fever this state of tongue may exist, and yet wine and opium may be given boldly, provided, as I have said before, the general state of the patient seems to require it.'

Let it be recollect, that in this case we had the symptoms of a dry and brown tongue, great thirst, epigastric tenderness, and heat of skin. On the first day of treatment leeches were applied

to the epigastrum, and wine exhibited to the amount of eight ounces. I have frequently leeched the epigastrum, and ordered wine on the same day, and with benefit. In our case the epigastric tenderness was lessened, but the thirst continued insatiable: the quantity of wine was doubled. Two circumstances led to this, one the extreme coldness and lividity of the extremities; and the other, the increasing indications of debility of the heart, as shown by the great indistinctness of the first sound, and the approach of the stethoscopic phenomena to what we term the *fœtal character*.

On the third day of the use of wine, and eleventh of the disease, the pulse fell from 116 to 92, and the first sound began to recover its natural intensity; this change was first *perceived over the right cavities of the heart*. This curious fact I have repeatedly observed, and I think it may be stated, that in all cases in which the first sound is lessened or obliterated, the return to the natural character is first perceived over the right side of the heart. Whatever be the cause of these interesting phenomena, it seems much more to engage the arterial than the venous side of the heart." (p. 21.)

In the secondary abdominal irritations, Dr. S. relies much on the application of large poultices, a practice for which we are indebted to Broussais, and one particularly useful, where, from early prostration, the use of leeches are forbidden. In the treatment of the same class of cases, Dr. Leco, of Dublin, employs the hip bath, and, our author avers, with success. Of the secondary affections in typhus, none is more insidious or dangerous than the bronchitis, or demands earlier or more careful attention.

Dr. Stokes "regards the action of wine upon the heart in typhus, as both sedative and stimulant;" "sedative, in diminishing its frequency; stimulant, in restoring its impulse and muscular sounds;" but when the action is favourable, these never transcend the normal limits. In no epidemic, he states, did he give so much wine as in that of last year, and in none was he ever so successful.

"Finally, I would draw the particular attention of my readers to the fact, that in the great majority of these cases the use of wine was followed by the happiest effects. I may safely refer to the cases in proof of this proposition; *I believe that in the diminished impulse, and in the feebleness or extinction of the first sound, we have a new, direct, and important indication for the use of wine in typhus fever*. In some cases, the existence of these phenomena at an early period of the disease led us to anticipate the bad symptoms, and to commence in good time the use of the great remedy; and in others, notwithstanding the existence of severe visceral irritations, the use of

stimulants has been adopted with the best success, from the same indication.

It will be seen that the quantity of wine employed in the foregoing cases was considerable. I shall exhibit in the following table the quantity given, the day on which its exhibition was commenced, and the period of the fever, as nearly as we could calculate it.

NAME.	QUANTITY OF WINE.	DAY OF COMMENCEMENT OF WINE.	DURATION OF FEVER.
Cavanagh,	26 ounces.	8th day.	13 days.
Wright,	36 "	14th "	22 "
Devereux,	42 "	14th "	16 "
M'Kone,	60 "	12th "	16 days; wine continued to the 20th day.
Wallace,	66 "	11th "	18 days.
Kain,	88 "	9th "	
Smyth,	144 "	10th "	
Edwards,	156 "	10th "	
Quin,	158 "	5th "	
Hickey,	170 "	7th "	

In one case the amount of stimulants employed was enormous, and the case, although of a most unpromising character, terminated happily. The patient was an elderly woman, admitted in a state of great prostration, three weeks after the invasion.

Wine, - - - 292 ounces.
Brandy, - - - 20 "
Porter, - - - 7 bottles.
Ethereal enemata, 2
Jelly, beef-tea, &c. &c.

"I may now state the conclusions to which we have arrived from our investigations of last year:

1. That the condition of the heart in typhus fever must be determined by the application of the hand and stethoscope, the pulse being an uncertain guide.

2. That a diminished impulse, or a complete absence of impulse, occurs in certain cases of typhus fever.

3. That in such cases we may observe a di-

minished first sound, or even an absence of the first sound.

4. That both these characters may exist with a distinct pulse.

5. That although in most cases the diminution of the impulse and first sound coexists, yet that impulse may exist without the corresponding first sound; and conversely, that the first sound may be heard, although unaccompanied by impulse.

6. That these phenomena are most evident as connected with the left side of the heart.

7. That when the impulse and first sound are lessened or lost, the return to the healthy character is observed first over the right cavities.

8. That in some cases both sounds are equally diminished.

9. That in a few cases the first sound preponderates.

10. That these phenomena indicate a debilitated state of the heart.

11. That they may occur at an early period of the disease, and thus enable us accordingly to anticipate the symptoms of general debility.

12. That the existence of these phenomena, in a case of maculated adynamic fever, may be considered as pointing out a softened state of the heart.

13. That this softening of the heart seems to be one of the secondary local lesions of typhus.

14. That the diminution or cessation of impulse, the proportionate diminution of both sounds, or the preponderance of the second sound, are direct and nearly certain indications for the use of wine in fever." (p. 66.)

Boylston Prize Dissertations on—1, Inflammation of the Periosteum; 2, Eneuresis Irritata; 3, Cutaneous Diseases; 4, Cancer of the Breast. Also, Remarks on Malaria. By USHER PARSONS, M. D., late Professor of Anatomy and Surgery, Brown University, &c. &c. Boston: 1839. 8vo. pp. 248.

ZABIEL BOYLSTON, F. R. S., of Brookline, Massachusetts, introduced inoculation for smallpox into America, in 1721. The first subject was a member of his own family; and though, for a time, violently opposed by both professional and popular clamour, he ultimately saw his experiment completely triumphant. It was a descendant of this gentleman who instituted the prize which has produced the volume of essays before us. Among the successful competitors from its institution in 1803, to the present time, are many names familiar in the medical literature of the country, as Bigelow, Sewall, Caldwell, Haxall, Holmes, &c. &c. Dr. Parsons obtained the premium on four occasions,—in the years 1827, 1828, 1830, and 1835. The subjects were—1, on Inflammation of the Periosteum; 2, on Irritable Bladder; 3, on the Connexion be-

tween Cutaneous Diseases, which are not contagious, and the Internal Organs ; 4, on the Diagnostic marks of Cancer of the Breast, whether it is curable. To these is appended an "Essay on the comparative influence of Malaria as a cause of Fever." This dissertation was not so fortunate as to have the premium accorded it, but received the respectful commendation of the Committee, recommending its publication and its author's name. The successful candidate on this occasion was, we believe, Prof. Caldwell, of Louisville.

These essays evidence, we think, considerable familiarity on the part of the author with his subjects, and fully warrant the distinction they received. They have appeared before in the medical journals of the day ; and the favourable attention they attracted, has induced the author, we presume, to offer them in their present form.

CLINICAL REPORTS.

List of Surgical Cases treated in the Pennsylvania Hospital, and discharged between the 1st and 23d of April, 1839. Dr. J. RANDOLPH, Attending Surgeon.

[Reported by J. F. MEIGS, M. D., Resident Surgeon.]

Admitted Febrary 19th, 1839, a case of fracture of both bones of the leg ; treated by the fracture-box until the 21st of March, when paste-board splints were applied. Discharged cured, April 1st, 1839, forty-one days after the accident.

Admitted February 6th, 1839, a case of compound fracture of the olecranon process, in which the joint was believed to be open, also a wound in the leg, situated between the tubercle of the tibia and the lower edge of the patella, produced by the explosion of a blast. The wounds being both small, and the man of middle age and good habit, it was determined to attempt to save the arm. It was placed on an angular splint, kept perfectly quiet, leeched, and cold applied. The leg was placed in a fracture-box and dressed with cerate. The man did well until the middle of March, when the arm was attacked with erysipelas, with an immense collection of pus, dissecting up the integuments of the arm ; a collection of matter also took place in the knee joint. Porter, quinine, and full diet was given, but he sunk gradually, and died on the 5th of April, worn out by the discharge and irritation.

Admitted March 10th, a case of fracture of both bones of the fore-arm. In this case there was a strong tendency in the radius to approach the ulna, which, had it occurred, would of course have very much impeded the motions of the arm, by preventing the pronation and supination. It was combated successfully, however, by means of long narrow compresses, placed in the length of the fore-arm, and which, by forcing the muscles down between the two bones, obviated their

tendency to approach. This case was discharged cured, on the 20th of April.

Admitted March 15th, a case of fracture of the olecranon, from a fall. Dressed with a straight splint on the front of the arm. The man left the hospital on the 1st of April, before the case was completed.

On the 1st of April a man was brought into the hospital, who, a few hours previously, had been run over the chest by a heavily laden cart ; there was great difficulty of breathing, and a severe stitch in the right side. Over the middle of the sixth rib there was a slight emphysematous swelling, and at one time it was thought that crepitus could be felt, though not after the first day. A tight roller was applied ; he was attacked next day with slight pleurisy, for which he was cupped ; took a purge of calomel, with an opiate, and recovered so as to walk on the 8th. In this case the fracture of the rib was not well marked, neither did it incommod him after the first week, when the slight pleurisy was relieved. He left the house on the 10th of April.

A case of contusion of the shoulder, from a fall, was admitted, and discharged cured in nine days, by means of rest and cold applications.

Case of Compound Fracture of the Thigh, with other Severe Wounds—Tetanus, with Death on the eleventh day.

A. H., a shoemaker, aged sixteen years, was admitted into the hospital April 7th, 1839, having been injured by a rail-road car a few hours previously, the wheel passing over his right leg and grazing the left knee. The right thigh was fractured in its lower third, with a lacerated wound an inch in extent, situated on the outer part of the thigh, opposite to the fracture. There was a lacerated wound of the right leg, commencing on the inner side of the tibia, a little below its tubercle, and extending eight inches downward. This, though deep, did not injure either the bone or any of the large vessels. A wound of about three inches in extent, tearing up the integuments to within an inch of the patella, existed on the inner part of the left knee. When admitted, the boy was very pale, with a weak fluttering pulse, and cold extremities. Brandy punch, with an opiate, was given, and sinapisms applied to the abdomen. There being very little haemorrhage, adhesive strips with lint, were applied and after the ends of the bone had been placed in apposition, by means of extension and counter-extension, a light bandage, from the toes upwards, and the leg placed in a long fracture-box. The left knee was dressed with strips and lint, and placed upon a pillow.

8th.—After a consultation, it was determined that, from the prostration, it was inexpedient to amputate. Delirious during night of 7th. Today his pulse is 145, and weak. The skin is warm ; tongue moist, and covered with a white fur ; does not complain of pain ; passes his water freely ; dressings untouched. R. Mist. Neutr. 3 ss., every two hours ; Tr. Opii gts. xv., every

four hours. To have a small quantity of brandy punch through the day. Left knee poulticed.

10th.—Has slept pretty well during the last two nights. Pulse stronger; skin natural; to continue same remedies. The first bandage was removed from the right leg, and, without disturbing the lint on the wounds, that of Scultetus applied.

11th.—Pulse 121, and stronger; skin warm; tongue covered with white fur; passed a good night; delirium entirely gone; appetite very good; having had no stool, he took some salts and magnesia, which operated freely; dressings of right leg undisturbed, as he has no pain; left knee poulticed twice a day; to have quinine gr. j., every two hours; chicken and porter.

12th.—Same as at last note. The bandage being removed from right leg, the pedge over the wound in the thigh was found firmly adherent; and as there was no inflammation, was left untouched. The edges of the wound in the leg are sloughing, with a free discharge of pus from the whole surface. Cerate was applied, and over that the Scultetus bandage.

13th.—Passed a good night, without pain. Pulse 128, and of moderate strength; skin cool and soft; tongue moist, and but slightly furred. The lint being removed from the wound of the thigh, this was found to look very well; no inflammation or collection of pus; an adhesive strip and lint were again applied. The wound in the leg as before. The wound of the left knee has been sloughing somewhat; this is, however, now arrested, and it is granulating. The joint is not opened. Continue laudanum, porter, quinine, &c.

15th.—Doing well. Pulse 128, and of moderate force. Skin natural; tongue slightly furred; bowels open by magnesia; appetite good; wound in thigh as before; that of the leg looks very well; pus healthy.

On the evening of the 16th he was attacked with trismus. The head is directed backward, the mouth closed, and he can with difficulty swallow. There is pain in the back of the neck; intelligence good; senses perfect; pupils natural. He can still, with some effort, flex the head and protrude the tongue, though it is very slowly, and with considerable difficulty. Back of neck to be rubbed with turpentine, and a blister, 4 by 6 inches, to be applied. Through the night he took 395 gts. of laudanum, which had the effect of contracting the pupil, and relieving somewhat the pain in the neck.

17th.—6 A. M. Has as yet had no general spasm. Pulse 140, and weak; skin warm; tongue covered with yellow fur; pupils somewhat contracted; trismus as before; can still protrude the tongue. Up to 9 A. M. took 275 gts. of laudanum. At this time, while dressing the right leg, it was seized with violent spasms, upon which 3j. of laudanum was given, which, for the time, arrested them. The wound in the right leg is now discharging a thinner pus than yesterday, though in other respects it has much

the same appearance. An enema was given, which operated freely.

10½ A. M. Trismus more violent; senses perfect; still complains of the pain in the neck; the pulse being very weak, and the skin cool, brandy 3j. in sago, was given every half hour; to have an enema of gts. c. of laudanum; to have a teaspoonful of laudanum, whenever the general spasm becomes violent.

6½ P. M. Has taken 3vss. of laudanum since last note. Trismus still continues, though able to protrude the tongue, which is moist; skin warm and moist; complains of but little pain; pupils contracted; senses natural; no stupor or inclination to sleep; has at intervals of about fifteen minutes a slight general spasm. Pulse 150, and weak, irregular.

He was after this period attacked with some severe general spasms, for which he took 3vss. of laudanum up to 12 o'clock the same night, at which period he died.

Case of Compound Fracture of the Skull—Trephining—Death.

F. G., æt. sixteen, admitted 3½ P. M. of the 8th of March, 1839, having been injured by a brickbat at 1 P. M. of the same day. A physician, who saw him immediately after the accident, stated that he was at that time perfectly sensible, asked for water, and appeared conscious of all that passed around him. When brought to the hospital, he was almost entirely insensible, though, upon calling him by name, he would open his eyes, yet could not answer questions, and very soon relapsed into insensibility. The pulse was slow, and rather feeble; the pupils dilated, and but slightly sensible to light; the skin warm. There was an external wound extending from half an inch above the middle of the left eyebrow, to an inch above the outer end of the right brow, with a fracture and depression of the bone beneath. The depression was a half or three quarters of an inch in depth, and was caused by three transverse fractures, forming two large fragments, the edges of the central fracture being the parts depressed, thus causing a triangular depression, the point of which rested upon the dura mater. It being impossible to introduce an elevator under the bone, a small trephine was applied on the sound part to the right, after which the lower fragment was raised to its level. The upper fragment could not be raised, however, until the lower one was entirely removed, as it was bound down by this latter. The boy now became sensible, answered questions, and asked for drink.

9th.—Morning. Passed a good night; quite sensible; pupils natural; skin somewhat hot; passed his water; pulse being accelerated, he was bled 3vi. and cold applied to the head. R. Mist. Neutr. 3vi; Ant. Tatr. gr. j. solut. 3ss; q. h. h. R. Calomel gr. ss. every three hours. Barley water as diet.

Evening. Skin hot; pulse 120; very restless; 3v. of blood to be taken by cups from the neck, and a drachm each of magnesia and salts

to be given. Died at 5 A. M. of the next day, without convulsions.

After death it was found that the fracture and depression involved the inner wall of the upper part of the frontal sinus. A clot of blood of about an inch square was lying upon the dura mater below the seat of fracture. Numerous spicula and laminæ of bone were adherent to and piercing the dura mater, which was roughened and covered with a thick layer of lymph. The arachnoid and pia mater were minutely injected; several masses of coagulated blood about the size of cherry stones were found effused into the substance of the brain, both right and left hemispheres, immediately beneath the contusion. The substance of the brain in general was moist but firm. Lateral ventricles did not contain more fluid than natural.

This case is reported more as being an instance of the extent to which the brain may be injured without influencing immediately its operations, than as useful in a practical point of view. Though the brain was here compressed to a considerable extent, (the upper fragment being above the frontal sinus,) yet for about two hours after the accident he was perfectly sensible, answered questions, mentioned how he was engaged at the time of the accident, and could distinguish colours.

A case of slight Sprain of the Ankle, cured in five days by rest in a fracture box and emollient applications.

Two cases of dislocation of the humerus into the axilla were admitted, both caused by falls upon the top of the shoulder while the men were intoxicated. They were readily reduced by placing a towel over the edge of the acromion process, which was given to an assistant with directions to make counter extension across the body in a direction a little above the opposite shoulder. The acromion being fixed, another towel was placed in the axilla to lift the head of the bone over the edge of the glenoid cavity. With the heel in the axilla and two men to make extension at the wrist the dislocation was readily reduced. The cavicle apparatus was then applied, and the arm kept quiet for a few days, when both were discharged well.

Admitted, a case of severe burn of the arms, head, and upper part of the body, in an old woman of 70 years, from her clothes taking fire. Her arms were poulticed and the face and body dressed with the linament of lime-water and linseed-oil. Brandy punch and opiates were given. Death on the third day.

A case of the necrosis of the alveolar processes of the symphysis of the lower jaw, in a child ten years old, from the action of mercury, was admitted. The piece being loose, was removed by Dr. Randolph, with a pair of forceps, and some lint applied to stop the bleeding. The boy was discharged the same day.

Profs. BUSH and PETER of Lexington, and Dr. H. H. SMITH of this city, are among the passengers in to-day's packet for Liverpool.

DOMESTIC SUMMARY.

Saratoga Waters. By N. L. NORTH, M. D.—The subject to which I wish to call the attention of your readers on the present occasion, is the MEDICINAL CHARACTER of the waters of the Saratoga Springs.

By many practitioners these are considered as nothing more nor less than an agreeable and generous laxative, and beneficial in cases of constipation, bilious derangements, dyspepsia, &c. But that there are other qualities that simultaneously co-operate with the aperient effect of the remedy, and are inseparably connected with it, is established beyond all doubt, and should be known by our profession generally, who are in the habit of sending patients to this village.

There are two methods of testing the nature of an agent that is to be introduced into the *materia medica*; viz., by carefully watching and recording the *therapeutical effects* of the article by the bedside, and by *chemical analysis*. The latter criterion is good as far as it goes. If sulphur be the only or principal ingredient in a mineral spring, we can bring analogy to decide, *a priori*, what must be the tendency and effects of the water. The same is true of a specimen that is principally saline, or principally chalybeate. We can feel, too, a considerable degree of confidence when two or more constituents are found in combination, provided we are acquainted with the modus operandi of these substances when administered by themselves. But every medical man knows there are limits to this mode of reasoning. How often has the practitioner been surprised at the augmented, diminished, or less irritating effects of some off-hand combination, that would be wholly unlooked for by estimating the separate agency of each article.

So of mineral waters. Chemical analysis can soon decide the exact medicinal nature of a new spring, independently of clinical observation. There are three reasons for this. 1st. Many medicines, such as oxyd of iron, carbonate of iron, pulverized cinchona, calomel, the extracts, the gum-resins when given in pills, capsicum, ginger, &c. pass through the alimentary passages with very little diminution from absorption. Mineral waters, on the contrary, as may be inferred from Dr. Beaumont's experiments, are introduced into the mass of blood by the absorbents of the stomach, without any previous deposition or digestion, and thus these mineral agents, which, in their minute proportions, would be very inert in a state of powder, are admitted to the inner coat of all the bloodvessels, and to the minutest branches of the secretory apparatus. How widely different these two modes of operation must be, all can readily understand. 2d. Chemical analysis cannot appreciate the mutual or qualifying effects of the ingredients on each other, as above stated. 3d. In the language of Dr. James Johnson, of London, (*Economy of Health*, p. 224,) "Mineral waters contain, in all probability, many agents which we cannot imi-

tate by artificial combinations. This is proved by every day's observation. Thus, the saline, aperient, mineral waters, will produce ten times more effect than the identical materials artificially dissolved and mixed. The same is true with respect to the chalybeate springs. A grain of iron in them is more tonic than twenty grains exhibited according to the pharmacopœia." At page 215—"It does not follow, however, that waters contain no active materials, because chemistry is unable to detect them. Powerful agents may be diffused in waters which are incapable of analysis, or destructible by the process employed for that purpose. The only sure test is EXPERIENCE, of their effects on the human body."

With these qualifying remarks on the proper estimate to be put on chemical analysis, I propose to lay before your readers the composition of some of our principal springs; and, 1st, the *Old Congress Spring*, which is in the South part of the village, just east of Broadway. In our wine gallon, or 231 cubic inches, there are of—

Chloride of sodium, (table salt,) 385 grains,
Hydriodate of soda, 3.5,
Bicarbonate of soda, 8.982,
Bicarbonate of magnesia, 95.788,
Carbonate of lime, 98.098,
Carbonate of iron, 5.075,
Silex, 1.5
Hydrobromate of potass, a trace,
Solid contents, 597.963 grains,
Carbonic acid gas, 311 inches,
Atmospheric air, 7,
Gaseous contents, 318 cubic inches.

The analysis of *Putman's New Congress Spring*, some forty rods north of the old Congress, and on the east of Broadway, has never, to my knowledge, been completed. It is a finely flavoured water, and has many properties similar to those of the Old Congress. This spring alone would do much towards continuing the present immense resort to this village.

Besides these, there is a spring on the premises of Judge Walton, in the north part of the village, which has lately been newly dug and newly curbed, by which process the fresh water has been effectually shut off from the mineral, and it is now considered both by villagers and strangers as a new fountain. It is, indeed, a beautiful water. Possessing the general properties of the other springs already mentioned, it seems to have two peculiarities, viz., the abundance and fixness of its carbonic acid gas, and its containing only 1-4th or 1-5th the amount of iron there is in the Old Congress. Numerous globules of the gas are seen from a distance floating in the water, and every few seconds explosions of very large bubbles occur at the surface. It bids fair to be an excellent article for bottling, and it has fallen into the hands of gentlemen who, I believe, design to give it circulation. The results of an analysis which are now before me, and which was made the past winter in Albany by Professor Emmons, I would insert, but the proprietors will probably

have the process repeated before giving it to the public.

This fountain has attracted great notice during the winter, and has been proved by numbers to possess the usual aperient and diuretic qualities of the other springs above mentioned. Its reconstruction, it is believed, will add greatly to the medicinal resources and permanent prosperity of the village. I need not stay to particularize the other springs, as the above received the principal attention from visitants. The chalybeate springs, of which there are several, are more tonic and less aperient than those already described.

The length to which I have extended this paper forbids my enlarging. The above statements would show that these waters are thoroughly aperient, diuretic and deobstruent. They are also decidedly *tonic*. This fact is fully confirmed by clinical observation. The late Dr. Steel, and all who have practised in this vicinity, as far as my knowledge extends, have found the same tonic effects to accompany the use of the waters. And it is remarkable that this is found to be the case with all the mineral waters of Europe that are not simply sulphureous. The Buxton waters in England, which contain only 15 grains of saline matter in a gallon, and 6 inches of gaseous products, have been found, from a record of 14,906 patients, to be highly stimulating and tonic. The bracing effects of the waters have proved a source of constant embarrassment to Dr. Robertson, of the place, and required continual counteraction. The same report comes from numerous other fountains in Europe; and confirms me in the position that the springs of Saratoga are not only diuretic, aperient and deobstruent, but *tonic*.—*Boston Med. and Surg. Journal*.

FOREIGN SUMMARY.

Case of Pericarditis with effusion. With remarks. By Professor GRAVES.—The following case was so accurately noted, and the dissection so satisfactorily explained all the symptoms observed, that I have thought it worthy of publication. It is deserving of notice, that here, as in many other instances, increase of energy in the heart's action preceded the appearance of the more characteristic and essential signs of pericarditis, a fact seeming to denote that the disease often commences in the muscular substance of the heart, and from that extends to its investing membrane. Two years ago, Dr. Marsh, Mr. Lees, and I, saw a case strongly illustrative of this opinion. An athletic young gentleman contracted a very acute rheumatic fever from cold; the pulse was very high, the heat of skin excessive, and the pain, tenderness, redness, and swelling of the joints was of more than ordinary severity. He would not allow himself to be bled; we employed an antiphlogistic treatment, and were constantly on the watch to detect the first approach of pericarditis. One night Mr. Lees detected intermission of the pulse; this, in a few hours,

was followed by increased strength of the heart's pulsations, and, finally, pain was felt. In many other instances I have observed irregular action of the heart to be the first signal of the approaching pericarditis: it is of importance to remember this, for it teaches us to attach more value to this symptom as a precursor of inflammation, and besides it proves that irregular and intermittent pulse may, in pericarditis, precede effusion, and do not necessarily arise from the impediment which the latter, when it takes place, must throw in the way of the heart's action.

Mary Kernan, ætat. 10, was admitted into the hospital yesterday, October 6th, in a state of collapse, moaning, sighing, and evidently suffering great distress from difficulty of breathing; the pulse could scarcely be detected; her extremities were cold, and considerable tenderness existed over the left side of the chest. Carbonate of ammonia, with calomel, and dry cupping to the painful parts, were ordered; and being this morning more at ease, and less in agony, she gives the following statements as the history of her illness.

Being placed in a draught of air, yesterday week, whilst lying in bed, was seized the following day with shiverings, vomiting, headach, pains in the loins, thighs, and legs, also a beating of the heart so strong as to make her imagine it would at last "thump" through her side, continuing for two days with slight intermissions in its violence; it was then accompanied with an acute, sharp, lancinating pain in the mammary region, extending to the neck and back, being particularly severe between the shoulder blades and the left arm as far as the elbow, and aggravated by motion, inspiring fully, or muscular effort of any description. Added to these complaints, there was difficulty of lying on the left side, with shortness of breath, and a hacking, distressing cough, without expectoration; this, however, she had had for many days previous, without any attendant pain or other untoward symptom. From the chest, the pain seemed to spread, or dart forward to the right side of the abdomen, and from thence over every part of the belly, occasioning more uneasiness than when confined to its primitive seat. Prior to coming in, some purgative medicines were given with slight relief. For several nights past, her sleep has been much disturbed, and she now lies on her right side, groaning frequently, and prostrated in strength, so as to be unable to raise herself in bed without assistance. She complains mostly of urgent thirst, a stuffing about the chest, and a "great weight, or heavy load on the heart," inability to lie on the left side, or sit up from an increase in the cough; pains in the mammary region, and palpitations of the heart; when pressure is made over this portion of the chest, much disquietude is produced.

Her countenance is bloated, œdematosus, and pale; lips almost colourless; skin hot and dry; breathing rapid and laboured, 48 in the minute; pulse 120, small, feeble, varying in strength, and intermittent; tongue furred and clammy.

The left side of the chest to the eye appears fuller, of larger dimensions, and the muscles, as it were, puffed out; this is particularly obvious about the nipple; when measured, no inequality between the two sides can be discovered; percussion from an inch below the left clavicle, to the lower part of the cardiac region, also laterally over a space of several inches, is perfectly dull; this is likewise observable over the middle and inferior parts of the sternum, and to the right of this bone, whilst posteriorly over both scapulae, as far as their spinous ridge, and below these bones, it is preternaturally clear. Respiration is exceedingly feeble over the dull parts, but free from rale, and elsewhere very loud. Impulse of heart cannot be felt; its action feeble, sounds indistinct below the mamma, becoming more audible towards the sternum, and can be heard in the epigastrium. No bruit can be detected. Abdomen full, tense, and much pained by pressure over the hepatic region.

Applicentur hirudines vi. regioni cordis et hypochondrio dextro. Hab. Pulv. Hydrarg. c. Creta gr. v. ter in die.

7th. Leeches were applied to the hepatic region alone; she expresses herself as somewhat relieved, and can now lie on the left side without being so much inconvenienced; slept better, and moaned comparatively little; pulse very irregular, is full and soft at one time for eight or ten beats, then diminishing in strength, it increases in frequency, to the rate of 120 or 130, gradually vanishes from beneath the finger, and ceases to be felt; the succeeding pulsations are full and distinct, not more than 88 or 90 in the minute. Respiration 48, still distressed; bowels open twice; tongue loaded and moist. Percussion over the parts noted above remains the same; on the clavicles of each side it is quite natural. Immediately above the left clavicle there is an evident fullness or swelling of the lower part of the neck, not visible on the right side; and on coughing a tumour is brought into view, which disappears as soon as the paroxysm subsides. Respiration in this part is perfectly distinct; a wheezing rale is audible in the lower portion of the left side. Heart's impulse and action the same; in the erect posture its sounds can scarcely be detected, but on lying down they are tolerable distinct.

*Applicetur Vesicat. Epigastrio.
Repr. Pulv. Hydrarg. c. Creta.*

8th. Was very restless the entire night, moaning frequently, and coughing constantly. Her countenance is less swollen; her breathing is more difficult; and she complains principally of the "stuffing and weight about the heart." Pulse remains of the same character, but is not so irregular.

No change has taken place in the phenomena either of the lungs or heart, except that the fullness in the lower part of the neck is more apparent, and the bronchitic rales more distinct in the inferior and middle portions of each lung. Abdomen not so tender, but still swollen; bowels purged.

Leeches were again ordered, and a further attempt made to bring the system under the influence of mercury, by inunction and the vapour of a mercurial candle.

9th. Breath is slightly mercurial; appears less affected in her breathing; the respirations continue rapid, 40 in the minute; no alteration in the character of the pulse.

There are now intense cooing and hissing rales in each lung posteriorly, but otherwise no change has taken place in the percussion or respiration. The cough is very troublesome, and attended with a frothy tenacious expectoration; pains increased, and palpitations induced by lying on the left side.

Repr. omnia ut heri præscripta.

Applicetur Vesicat. Hypochond. dextro.

10th. Prefers being in the erect posture, being more at ease, less oppressed, and in a great measure relieved "of the weight and load on her heart." Her countenance and aspect generally are improved, but her breathing remains frequent and laboured; *the pulse is regular, 128 in the minute, does not vary in strength, neither has an intermission occurred during so many beats.* She is at present sitting up in the bed, and whilst in this posture the pulse was counted.

Percussion over the inferior portions of each lung posteriorly, the left in particular, has lost its tympanitic sound, but retains it at the superior parts. Heart's impulse is still imperceptible, its sounds are distinctly audible along the sternum.

Applicetur Vesicat. lateri sinistro.

Repr. alia.

11th. The pulse again varies in strength, intermits occasionally, and partakes of the description given on the 7th, is 120 in the minute, but she is now in the recumbent posture; passed the night, as heretofore, moaning and in a very restless manner; complains of the oppression about her heart being increased, and refers it to the lower part of the sternum and right side. There is considerable wheezing in the throat; on account of the blister, no examination of the chest could be made; pressure over the abdomen produces pain; it is swollen and dull all over when percussed.

Applicetur Vesicat. regioni Cordis.

Rep. ut. ulto.

12th. The phenomena remain as before, viz., fullness about the lower part of the left side of the neck, with pure and distinct respiration; healthy sound on percussion over each clavicle, with the natural vesicular murmur; one inch below this, better marked on the left side, extending over the middle and inferior parts of the sternum, anterior part of right side, and a portion of the lateral of the left, a perfectly dull sound is elicited by percussion; the respiration being almost null in the left, feeble but distinct in the right. A very clear sound on percussion in the superior parts posteriorly, with a mixture of bronchitic and crepitating rale in the inferior lobes, and loud respiration, free from rale, in the superior lobes. Heart's impulse and action the

same. Pulse much weaker; respiration more frequent, 56 in the minute; breathing free; tongue loaded.

13th. Pulse almost imperceptible; breathing more laboured and distressed; lips of a livid hue. Died at 11 o'clock, P. M.

Post Mortem fourteen Hours after Death.—External appearance similar to that presented when alive; countenance puffed, pale, and oedematous; chest, *particularly left side, full and prominent*, and the abdomen distended and rounded. The same phenomena are afforded by percussion, as noted in the reports during life. The integuments of the chest, as also those of the abdomen, are watery. As soon as the knife pierced the cartilages of the left ribs, a gush of straw-coloured fluid took place, and when the sternum was raised, nothing but the pericardium could be seen, to such an extent was it distended, as to occupy the mesial line, extending from the diaphragm to within one inch of the fourchette of the sternum, and across to the right side. On removing it from the left cavity of the thorax, the lung was found much diminished in size, pushed upwards, and pressed against the spine and ribs. Having lost a great deal of its natural feel, and appearing like a lung compressed by a pleuritic effusion. The right lung was also affected in the same manner, but in a minor degree. Slight adhesions of recent formation existed between the left lung and pericardial sac, as also between the pulmonary and costal pleura, at the superior lobe of the right lung.

The pericardium itself is increased to at least three times its natural capacity; its exterior highly vascular, whilst its internal surface appears smooth, shining, and covered with a gelatinous kind of fluid, resembling the mucous coat of the stomach, or other portions of the intestinal canal. Its thickness is from three to five lines; but on inspecting the cut surfaces minutely, it is evident this increase is produced by the addition of a false membrane. On the surfaces of this membrane are several patches of apparently coagulated lymph, stained of a purple or dark red colour; differing considerably in their dimensions, and situated in particular near the base of the heart, and that part of the sac in connexion with the posterior surface of this viscous; the larger of these, however, of an oblong shape, about two inches in length, and of a darker colour than the rest, is situated where the anterior part of the heart and pericardium are in contact. Besides these, there are innumerable depressions or pittings, capable of admitting the end of a probe on the lower and anterior part of this membrane, whilst near the base of the heart and the posterior part of its investing sac, this coating is separated into distinct patches, the serous covering of the pericardium being quite apparent underneath, and presenting its natural glistening appearance.

This false membrane can, with the greatest facility, be scraped off in solid pieces by the nail.

The entire surface of the heart is of a vermil-

lion colour, and coated over with a most beautiful honey-comb, reticular kind of organized lymph, exceedingly fine, but perfectly adherent to the layer of serous membrane covering the heart at the apex.

Advancing upwards or nearer to the base, it is more condensed and compact, seemingly farther progressed in the process of organization, the shreds and interlacing fibres being increased in bulk.

From the quantity of this crimson-coloured network, at the commencement of the aorta and pulmonary artery, it is almost impossible to distinguish between them, so closely are they united together. The under surface of the auricular appendices, and that part of the heart they rest on, are the only portions which do not present to the same degree, and in a slight manner merely, the general aspect described.

Covered in this manner, and to such an extent as the anterior surface is, the posterior is trebly more so, and with a form of lymph more organized, denser and firmer, and from its exterior are three or four appendages, tough, closely adherent to, and evidently taking their origin from the surface of the coagulable lymph.

On the removal of a portion of this coating, the substance of the heart beneath presents a rosaceous hue; its size does not appear to be much altered, perhaps larger than natural. No examination of the interior. A quantity of the same coloured fluid escaped from the cavity of the abdomen on laying open its parietes; the liver did not appear increased in size, and its structure was perfectly healthy; bands of lymph passed between and connected together the visceral and parietal peritoneum, few and slight, and not connecting together the intestines themselves. The interior of the intestinal canal was not examined.

Observations.—In the preceding case the following points are worthy of notice:

1st. The great size of the tumour formed by the distended pericardium.

2dly. The protrusion of the left lung to a considerable extent above the clavicle, forming the tumefaction observed in that situation.

3dly. The tympanitic sound produced by the close application of the lung to certain parts of the *tense* pectoral parietes.

4thly. The varying states of the pulse, at one time intermitting and irregular; at another, free from these characters.

5thly. When admitted, copious effusion into the pericardium had already taken place, and yet the countenance was pale, and the lips colourless; there was no suffusion, no lividity, no venous turgescence whatever in the eyes, face, or lips; and yet her breathing was 48, and the pulse feeble, varying in strength and intermittent.

6thly. Although it is said in the report, that the left half of the chest did not measure more than the right, yet there was an evident dilatation of the former, exactly corresponding to the distended pericardium, which, pushing before it the flexible parietes, formed a well marked and

evident prominence. This likewise rendered the parietes of the superior portions of the left side of the chest more tense than natural, an occurrence sure, for reasons well explained by Dr. Williams, to occasion increased resonance on percussion. *I am not aware that this consequence of pericarditis has before been described.*

Dublin Journ. Med. Science.

On the Treatment of Scrofula. By MR. BENJAMIN PHILLIPS.—Now, as to treatment, I would say, if a child is residing in a town, no matter whether in a large house or a small one, a change to the country is very desirable. The change of air, joined to the exercise in the open air which may there be taken every hour in the day, is unquestionably a very powerful means of preventing the development of the disease. With respect to the necessity for change of climate, I have much difficulty in pronouncing. Many circumstances would seem to warrant the opinion, that such changes may exercise a remarkable influence in the development of scrofula.

It is unquestionably a fact, that men apparently exempt from all scrofulous disposition or affection, are now and then attacked, when they quit a warm country to inhabit a cold one; and in these cases it is said the disease is more serious and more difficult to cure: the broad fact may be true; but we want to know, what has been the change in their habits as well as in the climate. Again, it is not easy to ascertain whether in youth a tendency to the disease was manifested. If a child be brought to you suffering from the disease, and you ask the parents whether they have suffered from a similar affection, you may be sure they will say no, and will vaunt the excellence of their constitution; they may say, probably, the nurse may have been tainted, or that their child has mixed a good deal with some children who had suffered. It is certain that animals transported from warm to cold climates ordinarily suffer from tubercles; but then it is difficult to estimate the influence of climate in producing the disease; their accustomed exercise in search of food is lost, and they are the denizens of a narrow space, boarded on three sides, so as to allow of a human minimum ventilation. On the other hand, it is certain that persons evidently scrofulous are frequently much benefited under the influence of warmer climates; in fact it seems to be by this circumstance that we are enabled to explain the amelioration which patients undergo during summer, whilst, during other portions of the year, it may resist every kind of treatment; and without seeking to deteriorate the merits of iodine, every one who has been accustomed to administer the different preparations of this medicine must have observed how comparatively ineffectual they are in the cold months; how decidedly advantageous is their exhibition during summer.

Before we proceed further, it is necessary to inquire whether there be any other particular circumstances under the influence of which reme-

dial means present a better prospect of success. As to food, the course I am accustomed to pursue is, to afford my patients what is termed a generous diet, when there is no decided mesenteric affection to contra-indicate it; to give them a moderate quantity of animal food once a day, with well-cooked vegetables, and good bitter table beer, or wine and water. As to cleanliness, this must be carefully attended to, either by means of bathing or sponging; the surface of the body should be daily abluted and rubbed for some minutes, until thoroughly dry, and the capillary circulation of the surface be stimulated by means of warm towels. A most important element in the treatment, and one which cannot be too much insisted on, is exercise; but it must not be that kind of gentle exercise which invalid children left to themselves are too apt to take, but such as will largely employ the muscular system; they should be taken out twice or thrice daily in winter, if possible; and in summer they should be very little in the house during the day. It is necessary that games should be provided for them, so as to secure active motion for as long a time as the patient can bear it without fatigue. Indeed, I hold this to be one of the most decided preventives of this disease. I am so strongly impressed with the value of this agent, that I willingly subscribe to an opinion I have somewhere seen maintained, that by the well-directed employment of strong muscular exercise, many cases of this disease, where even tumours are found in the neck, may be cured. I hold it, therefore, to be necessary, that the several means to which I have now alluded should form the groundwork of our treatment of this disease, to which should usually be added the exhibition of certain medicinal substances.

Various systems have been greatly eulogized by their respective inventors. Many of them have long been consigned to oblivion, and probably some of those still retained, might, without loss, share a similar fate. I have fairly tried four of these systems, and I shall lay before you the results: those which I have employed are the antiphlogistic; in which I include the use of purgatives, emetics, blood-letting, and counter-irritation, the treatment by the various preparations of iodine, the alkaline treatment, and the mercurial.

Purgatives are unquestionably useful when conjoined with the general means to which I have alluded, and will frequently very manifestly modify, if not cure the disease, and they are especially valuable as an adjunct to the other modes of treatment: they are particularly useful when given during those periodical interruptions which are necessary in the treatment by iodine. How they exercise this beneficial influence is not so easy to explain—whether by exciting the action of the stomach and intestines, by procuring serous evacuations, or by other means; so much, however, is certain, that they are often of great use, and especially as an accessory means of treatment. The impression produced upon my mind is, that those purgatives are most benefi-

cial which procure fluid evacuations, those into which saline substances enter.

My own experience does not enable me to recommend emetics with so much confidence as seems to have been felt by Bell, Smyth, Bordeu, Kortum, or Dussassoir. Undoubtedly, scrofulous children very commonly present a furred tongue, which is often not cleaned by the use of purgatives; such a case is often much benefited by one or two emetics; but beyond this my belief in their efficacy does not extend. I have never known the frequent use of emetics to be succeeded by any greater amount of amelioration than is usually experienced from the exhibition of two or three.

I have never known more than a passing relief to result from *blood-letting*; and this might naturally be expected, if it be true (and there is every reason to believe it is) that in scrofula the serum largely predominates in the blood. The abstraction of any quantity of blood must necessarily lessen that proportion, and as necessarily increase the evil which it is intended to remedy. The action of purgatives, when they produce watery stools, is the opposite of that. They occasion the exhalation of a considerable quantity of serous fluids upon the mucous surface of the intestines; and by so much lessen the preponderance of the serum in the blood.

In the last and the preceding centuries, it was currently believed that we possessed a power of neutralizing the condition upon which the tendency to abnormal deposits depended; and that power was supposed to exist in the *old subcarbonate of potash, or salt of tartar*. Levret believed that it was capable of rendering all deposits fluid, and that in this condition they might be absorbed or evacuated. Although, in the present day, we are satisfied that such virtues are not found in this substance, yet a sort of vague, undefined impression seems to exist, that it is not wholly useless even in scrofula. The Elixir of Peryrillé, used in France up to the present day, is a mixture of this substance with infusion and tincture of gentian. In the *Collectanea Hauniensis* is a case of rickets, which appears to have been successfully treated by this medicine. Internally, I have given this medicine in small and large doses, in almost every form of scrofula, whether affecting the glandular, the mucous, the osseous, or the fibrous tissue; and I am unable to point out any case in which any small amount of relief which may have been obtained during its use could be fairly referred to this medicine.

In 1784, Crawford proposed as a remedy the *muriate of baryta*, and it was well received; it was very generally used through the greater part of Europe. Suddenly, two very opposite opinions were propagated with regard to it: one, that it was a useless addition to the *materia medica*; the other, that it was an agent of great energy, and that its exhibition, unless very guardedly, was not without considerable danger. These opinions were no sooner published than its use was abandoned, without, as it appears to me, any fair trial, in every country of Europe except

Austria. The Austrians were satisfied that in this medicine they possessed a very valuable agent in the cure of scrofula, and my own experience has convinced me that they were right, and that with the exception of iodine, no medicine seems to exert a more decided influence over scrofula than the muriate of baryta. It usually increases the appetite to about as great an extent as we see in children who are taking moderate doses of iodine; it increases all the secretions, and sometimes, like some of the forms of iodine, produces diarrhoea.

In twelve cases where it was exhibited in the dose of, at first one-third and afterwards half a grain, three times a day, no unpleasant symptom was developed. Eight were materially benefited by its employment. The general health improved sensibly, and the enlargement of the glands was very considerably lessened. In the other four cases no sensible influence was exerted over the disease. At the same time, however, that I am fully sensible of the valuable character of this medicine, I am bound to admit that its curative effects are less powerful—less certain—than those of iodine, and, therefore, for some time I have ceased to employ it. Several times I have proposed to use it alternately with iodine, or, when it has been necessary, to intermit the employment of the latter; but I have not yet carried this intention into effect.

Iodine, in its various forms, I have used extensively; and I have had very ample opportunities of estimating the relative merits of the different preparations of this substance. I have administered it in the form of tincture mixed with water, and also associated with the iodide of potassium. I have exhibited the iodides of iron, lead, sulphur, and arsenic. I have employed it externally, in the form of ointment, lotion, and bath; and as a broad or wholesale result, I may state shortly, that at present I rarely use internally any other form than the iodide of iron, and that the dose does not exceed, in any case, three grains, three times daily. I do not object to the tincture, because, as is alleged, the iodine is thrown down in a pure state when dropped into water, and so applied to the mucous membrane of the fauces and stomach, and is apt to create irritation there; but because I found that diarrhoea was an occasional consequence of its use—that it was inconvenient to trust the persons ordinarily found about patients to administer it—or because, when mixed in considerable quantity, a certain portion is precipitated, and because I found, in the ioduret of iron, a more valuable and certain remedy. I am quite ready to admit that many of these inconveniences were lessened by the combination of iodine with the iodide of potassium, suggested by M. Lugul; but the objection I found to attach to this form of administering the medicine, was the bulk of the vehicle, which very frequently disordered the stomach; and when I have lessened it, I have usually seen disorders of the stomach and intestines as a consequence. And in several cases, although the doses have always been moderate,

the poisonous effects of this medicine have been developed; and I have no doubt that these effects would have been more frequently seen, had we not from time to time interrupted the treatment.

Internally administered, I have had no reason to speak strongly in favor of the iodides of mercury, lead, and arsenic. The first and last are unquestionably energetic preparations, but I think them better adapted to certain obstinate diseases of the skin than to scrofulous tumours, and even externally, except in a very dilute form, when they may unquestionably second the internal administration of the medicine: if the quantity of biniodide of mercury exceed ten grains to the ounce of lard, the irritation excited upon the part where it is rubbed will be such as to prevent our continuing it. The preparation of lead, in the proportion of a drachm to the ounce of lard, rarely excites similar irritation.

I have a register of 172 cases in which I have exhibited the iodide of iron. The minimum dose has been a grain twice a day, the maximum three grains three times a day. Of these cases, only twice was it necessary to intermit the use of the medicine for a few days: in one of these it excited ptyalism; it was laid aside for a fortnight, again resumed, and again produced ptyalism. Since that period, and within the last three months, the same patient, on her return from Margate, has been taking the medicine with the most decided good effects, and without ptyalism. In the other case diarrhoea supervened; the medicine was withheld for ten days, was then resumed, continued for several weeks, and without any derangement of the bowels. About once a week an aperient or purgative is given, which decidedly assists the treatment, but no other suspension of the medicine occurs. Where scrofulous ulcerations occur, whether as a consequence of abscess or from other cause, I am accustomed to employ, with the very best effect, a lotion containing three or four grains of this preparation to the ounce of distilled water.

In the employment of iodine or the iodide externally, one fact cannot escape a superficial observer, and that is the rapid change which follows the application. For a few days this diminution is very striking, but it is not long continued, and after a fortnight or three weeks the tumour appears stationary. Then is the time for resorting to a new form, which must be employed for a similar period, and must then give place to a third. But although these external applications will occasion a marked diminution of such tumours, they hardly ever completely disperse them; and when applied alone, without a concurrent internal administration of some preparation of the medicine, their effects are much less decided.

When such tumours are extremely indolent, the ointment may be rubbed upon the part without fear of injury; but if they be the seat of irritation, it is very likely to be increased by friction. In consequence of this circumstance, I usually recommend it to be applied to the part spread on

lint. It is thus kept in contact with the surface for a much longer time, the irritation consequent upon rubbing is avoided, and the good effects of the medicine are more decidedly marked than by any other mode of application.

Many authors speak of the great or partial emaciation consequent upon the use of iodine. Jahn describes cases in which the emaciation was general. Coindet has referred to a diminution of the mammae. Hufeland also gives three examples of it. Others have referred to the testicle as suffering in a similar way. And these isolated cases, which may or may not have succeeded to the use of iodine, are erected into a general law. Now, in my own experience, so far from emaciation of the whole or a part of the body being essential to the therapeutical action of this medicine, when prudently administered, one of the earliest symptoms observed is a remarkable increase of appetite, and a corresponding increase in the bulk of the body. I have watched its effects with great care, and I have not known a single case in which either the whole or even a part of the natural structures of the body have undergone any such change.

My experience of iodine in the form of baths is inconsiderable: such as it is, it leaves no desire on my mind to extend it. In two cases a considerable and troublesome eruption on the skin was produced; in three cases vertigo, with a confused countenance, was occasioned, which was not dissipated for many hours, and no sensible good effect was produced on the tumours. These circumstances, added to the costly nature of the remedy, have deterred me from prosecuting further this mode of treatment. I know that this opinion is in opposition to that of Lugol, who is satisfied that the cure of these diseases is much accelerated by the conjoint use of baths and internal remedies; but any one who reads the cases given by Lugol cannot fail to recognise the same effects which I have described, though with less intensity. However, Baudelocque has come to a conclusion not very different from my own. Still he points out a remarkable effect which he has observed upon suppurating surfaces: he has always seen the suppuration much diminished, and the surface contracted; so that for some days much less linen was required for dressing the patients; but this effect does not seem to have been permanent.

Relying upon the encomiums of Hufeland, Charmeil, and others, I resorted to the use of *black sulphuret of mercury* in the treatment of this disease; but, whether associated with hemlock, magnesia, or ipecacuanha, I found no sufficient reason to induce me to employ it generally. I do not deny that the disease is often gradually but slowly ameliorated during the administration of this medicine; and I have never known any unpleasant effects—such as salivation—to result from its use; on the contrary, the tongue and the evacuations have improved under it, but with much less certainty and a much greater loss of time than under the influence of iodine. I prefer it to the common mercurial remedy em-

ployed in such cases—calomel and rhubarb—because, with the exception of the amount of good produced by evacuating the bowels, I have never seen any decided antiscrofulous virtue manifested by it.

Though under the influence of those remedies which we have just been considering, a patient's general health may be very decidedly improved—though glandular tumours may lessen—and even where suppuration has taken place, and the integuments over it have become thinned, they may be dissipated—yet where scrofulous matter has been deposited in its cheese-like form, neither iodine nor any other remedy which we know has power to procure its absorption; where it is deposited there it must remain; a point around which irritation is easily kept up, and about which, sooner or later, suppuration will take place; the abscess will either break, or art will interpose to facilitate this result by puncture, and it may thus be eliminated from the system. True it is, however, that the disposition to deposit this matter may be neutralized, and that all the more fluid portions of matter so deposited may be absorbed, and that, after death, a mass of cretaeuous matter will be found to occupy its place. But in a large number of cases, spite of the most prudent treatment, the local disease will end in abscess; for instance, out of 89 cases, 33 presented this termination. When this is inevitable, it is unquestionable that we ought to anticipate by puncture, or other means, that gradual thinning of the tissues to which nature resorts in accomplishing the object; but it is not an easy matter to determine whether or not a scrofulous abscess will advance or retire; we may see the integuments so thinned that only the cuticle would seem to prevent its emptying itself, and yet it will retire—the whole of its contents will be absorbed. It must, however, be borne in mind that such abscesses are usually found to occupy the cellular tissue, and sometimes a lymphatic vessel, where no gland exists; in those cases where the abscess surrounds a gland where the product deposited in the substance of the gland is a constant source of irritation, the onward progress of the disease is more probable. It would, of course, be desirable that not only the thin sero-purulent matter which is usually contained in such abscesses, but also the scrofulous product, should be evacuated before the thinning has proceeded far, and the violet colour of the integuments is displayed; but this is a desideratum not easily accomplished. If the product have not undergone softening, often no evacuation of the matter will take place; if it have, a slight oozing, bringing away from day to day small portions of this matter, will be the course of evacuation, and often many months will elapse before the gland and its contents shall have been evacuated; and at the end of that time an unsightly cicatrix will be the consequence. This result is accomplished in the following way: one or two small openings in the thin violet-colour integuments are the channels through which the matter is discharged. A more or less extend-

ed cavity exists under, produced by the breaking down of the gland and its surrounding cellular tissue. When the whole of this structure is broken down and evacuated, this surface presents granulations which have a tendency to skin over without adhering at all, or on other occasions only partially to the superjacent thinned integuments. The consequence of this is an irregular puckered surface; and when, as is often the case, the subjacent tissue becomes adherent to the deeper-seated organs, the deformity is increased by a pitting. To prevent this aggravation, two modes may be resorted to. When the time for procuring the evacuation of such a tumour has arrived—when the integuments have become much thinned—the best mode of opening it is by applying the Vienna caustic paste to the part, taking care that the paste shall include the whole of the thinned structure. A fair and sufficient opening will thus be made; the evacuation will be more speedy, the remaining tissues will be healthy, and the cicatrix will be comparatively trifling. If, however, this have been neglected, or another course pursued—if the discharge be going on from one or more small points—if the integuments over the parts be very thin—then with scissors excise the whole of the violet integuments, and you may hope to lessen the deformity which would otherwise succeed to the disease. But much valuable time would probably be lost in the endeavour to heal the sinuses connected with the cavity; the various forms of iodine, in a more or less concentrated state, would have been applied to them, and the patient subjected to much suffering. And here I may state that after ample experience of such applications to these sinuses, I am decidedly of opinion that they occasion more pain and are much less efficacious than the nitrate of silver.—*London Medical Gazette.*

Drs. Crampton and Marsh.—Her Majesty has been pleased to grant the dignity of Baronet of the United Kingdom to Dr. Crampton, the surgeon-general in Ireland. Dr. H. Marsh, physician in ordinary to her majesty, in Ireland, has had the same honor conferred upon him.—*Ib.*

On the Cicatrization of Tendons. By M. BOUVIER.—M Bouvier has been lately engaged in making experiments on this subject; and he exhibited some of the results at a recent meeting of the French Academy. His experiments went to ascertain—1, how far the divided ends of a tendon may be separated from one another, immediately after their division, so as not to prevent their reunion by any intermediate tissue; 2, in what degree the new tissue approaches to that of the true tendinous matter. The tendinous cicatrices presented to the Academy were taken—1, from a horse, two months before it was killed, and consisted of a perforating tendon of one of the anterior extremities; 2, from a dog, which was killed six months after the division of the extensor tendon of the foot. Each of these cicatrices was about two inches and a half in length.

That of the horse consisted of a grayish, compact tissue, consisting of irregular fibres not very conspicuous, contrasting with the pearly appearance of the true tendon. The cicatrix of the dog consisted of longitudinal fibres, more delicate than those of the tendon, and arranged differently, being also very distinct from these.—*Brit. and For. Med. Rev. from Bulletin de l'Academie de Médecine.* No. xvi. 1838.

Nearly complete Obliteration of the Pulmonary Artery.—Dr. J. A. Power presented an example of this rare lesion, taken from the body of a young girl, who had been born with morbus ceruleus, and who died from an attack of bronchitis, at the age of twelve years.

The foramen ovale was not completely closed: the orifice of the pulmonary artery presented the appearance of a small papilla, through which it was barely possible to pass a fine probe; the tricuspid valves were puckered and contracted, and must have admitted of a free regurgitation into the right auricle, which was greatly enlarged and thickened; the musculi pectinati were highly developed; the right ventricle was also hypertrophied and dilated; the left auricle and ventricle were much reduced in size, and the termination of the right ventricle formed the apex of the heart. In this case the pulmonary circulation must have been carried on by the bronchial arteries.—*Dublin Journal.*

Cancer of the Lung and Heart.—Dr. Law presented a drawing, exhibiting extensive cancerous disease of the left lung; numerous tumours, of various sizes, were found imbedded in the substance of the organ; some having a consistence similar to that of brain, others were hard and cartilaginous; in some of the latter, a milky fluid existed in the centre; and they presented a fibrous structure, the fibres occasionally presenting a concentric arrangement; a mass of soft encephaloid matter was diffused through the centre of the lung; several tumours, likewise of a cancerous nature, existed between the base of the lung and the diaphragm; and one was noticed upon the anterior surface of the heart, and another imbedded in its muscular structure; softened tubercles existed in the liver, and one of the costal cartilages presented a tumour of the same fibrous character as those observed in the lung.

Ib.

English Medical Society at Paris.—It may be interesting to the profession to know that an English medical society has been established in Paris, since the commencement of last session, and that it now includes between ninety and a hundred members. Evening meetings are held weekly, at which papers are read, and discussions take place: these meetings are peculiarly interesting, as men from London, Edinburgh, Dublin, and different parts of America, join in the proceedings, as well as some of the "internes" and "externes" of the Parisian hospitals.—*London Med. Gaz.*